



## Product Description

The Tannoy iw6 DS is a full bandwidth in wall speaker system, using a 165mm (6.50") bass and mid-range driver and a 25mm (1.00") WideBand™ high frequency unit, designed for installation into standard stud partition wall systems. It may also be used in cavity wall installations constructed with standard thickness drywall as well as a wide range of other wall construction types with a surface thickness of up to 25mm (1.00").

The bass and mid-range driver of the iw6 DS is built around an immensely strong chassis; the rigidity of which controls the energy created by its long throw with ease. This is a crucial factor in creating a drive unit capable not only of high power delivery and tremendous bass output, but also of great subtlety and finesse.

The class leading performance of this in wall speaker is further enhanced by the inclusion of a 25mm (1.00") Tannoy WideBand™ high frequency unit, with titanium dome with neodymium magnet system, to extend the bandwidth to over 50kHz.

This high power handling, wide bandwidth unit is specifically designed for applications requiring the combination of premium sonic quality for music and speech reinforcement and exceptional reliability and intelligibility.

The drivers and passive frequency dividing network are mounted in an injection moulded, paintable front baffle manufactured from UV/weather resistant UL94V-0 ABS material. The class leading performance is further enhanced by the inclusion of six self aligning, spring loaded clamps; allowing for quick install but also for simple removal or reorientation of the loudspeaker. The rigidity of the clamps and baffle combination crucially provides the acoustically optimum bond to the wall surface without risk of distortion to the baffle itself.

Gold plated spring loaded terminals are provided for ease of installation and a steel back can is available as an optional installation accessory. Complementing any style of decor, the perforated metal grille and discreet moulded baffle can be painted to blend seamlessly with any environment.

## Features

- Extended frequency response and very low distortion
- Wide, controlled constant directivity dispersion for optimum coverage
- Does not suffer from massive loss of energy in the vertical plane at crossover caused by two way discrete designs
- UV/weather resistant UL94V-0 ABS construction for structural integrity
- Dynamic high frequency protection
- six way self aligning clamp mounting system
- Ferrofluid cooled neodymium high frequency
- Five year warranty

## Applications

- Foreground music & paging systems
- Multi-room audio systems
- Home theatre
- Business music systems
- Boardrooms and offices
- Retail environments
- Retail outlets and shopping malls
- Lounges and bars
- Cruise ships
- Courtrooms

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## TECHNICAL SPECIFICATIONS

<b>System</b>	<b>iw6 DS</b>	
<b>Frequency Response (-3dB) <sup>(1)</sup></b>	80Hz - 51kHz	
<b>Frequency Range (-10dB) <sup>(1)</sup></b>	44Hz - 54kHz	
<b>System Sensitivity (1W @1m) <sup>(2)</sup></b>	89dB (1W - 2.83V for 8 Ohms)	
<b>Nominal Coverage Angle</b>	120 degrees	
<b>Coverage Angle (1kHz to 6kHz)</b>	130 degree	
<b>Directivity Factor (Q)</b>	3.15 averaged 1kHz to 6kHz	
<b>Directivity Index (DI)</b>	4.9 averaged 1kHz to 6kHz	
<b>Rated Maximum SPL <sup>(3)</sup></b>		
Average	108dB	
Average	107dB (with optional THP60 transformer)	
Peak	114dB	
<b>Power Handling</b>		
Average	75W	
Programmed	150W	
Peak	300W	
<b>Recommended Amplifier Power</b>	150W @ 8 Ohms	
<b>Nominal Impedance</b>	8 Ohms	
<b>Distortion</b>		
<b>10% Full Power (5.5V)</b>	2nd Harmonic	3rd Harmonic
250Hz	1.17%	0.10%
1kHz	1.26%	0.24%
10kHz	0.3%	0.23%
<b>1% Full Power (1.73V)</b>	2nd Harmonic	3rd Harmonic
250Hz	0.36%	0.21%
1kHz	0.01%	0.19%
10kHz	0.08%	0.05%
<b>Crossover</b>	Passive 2.7kHz	

**Notes:**

- (1) Average over stated bandwidth. Measured at 1 metre on axis.
- (2) Unweighted pink noise input, measured at 1 metre in an anechoic chamber

A full range of measurements, performance data, CLF and Ease™ Data can be downloaded from [www.tannoy.com](http://www.tannoy.com)

Full independent verification of published specifications carried out by NWAALabs, California can also be obtained from the downloads section of [www.tannoy.com](http://www.tannoy.com)

Tannoy operates a policy of continuous research and development. The introduction of new materials or manufacturing methods will always equal or exceed the published specifications, which Tannoy reserves the right to alter without prior notice. Please verify the latest specifications when dealing with critical applications.

<b>Transducers</b>		
<b>Low Frequency</b>	1 x 165mm (6.50") bass driver	
<b>High Frequency</b>	19mm (0.75") titanium dome with neodymium magnet system	
<b>Physical</b>		
<b>Enclosure</b>	Baffle	UL 94V-0 rated ABS
	Grille	Steel, with weather resistant coating
Optional accessory:	Backcan	Zinc plated steel
<b>Clamping Design</b>	Self aligning six way security toggle clamp	
<b>Connectors</b>	Gold plated connector spring terminals	
<b>Hole Cutout Size</b>	271.5 x 168.5mm (10.70 x 6.63") Maximum wall thickness - 25mm (1.00")	
<b>Dimensions</b>		
Front Baffle	320 x 209mm (12.60 x 8.25") (H x W)	
Front of baffle to rear of magnet assembly	98mm (3.86")	
Front of wall to rear of magnet assembly	93mm (3.66")	
<b>Net Weight</b>	2.8kg (6.16lbs)	
<b>Included Accessories</b>	Painted mask, cutout template, grille	
<b>Optional Accessories</b>	Steel back can Steel back can with THP60 Transformer Plaster (mud) ring	
<b>Transformer Taps (optional)</b>		
70V	60W / 30W / 15W / 7.5W / OFF & Low Impedance operation	
100V	60W / 30W / 15W / OFF & Low Impedance operation	

### Ordering Information

PART NUMBER	MODEL NAME	COLOUR	PACKED QUANTITY
8000 3750	iw6 DC	White	1

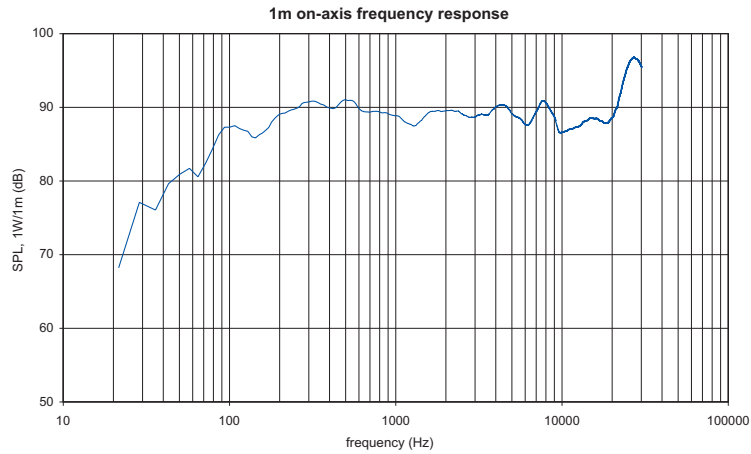
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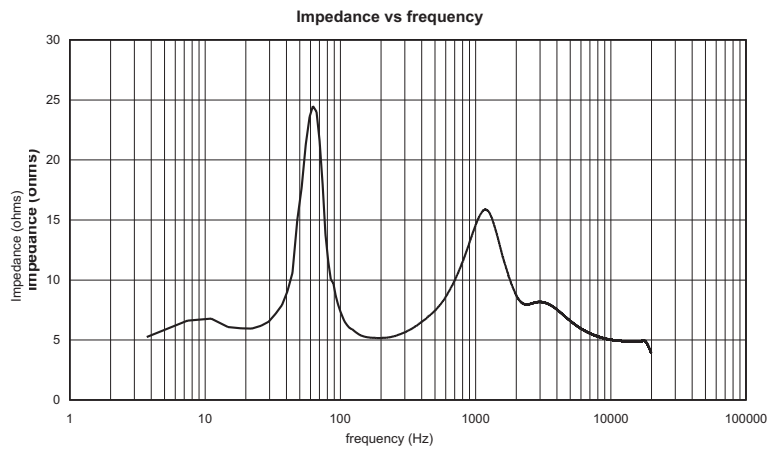
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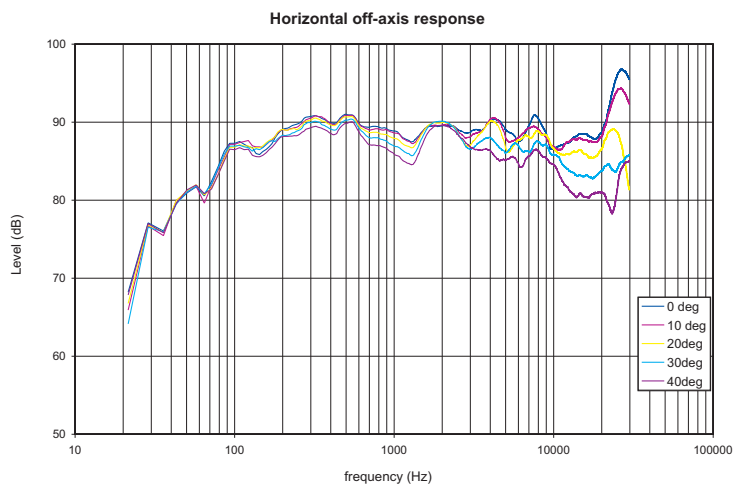
## PERFORMANCE MEASUREMENTS



**ANECHOIC  
FREQUENCY  
RESPONSE**



**IMPEDANCE**



**OFF AXIS  
RESPONSE**

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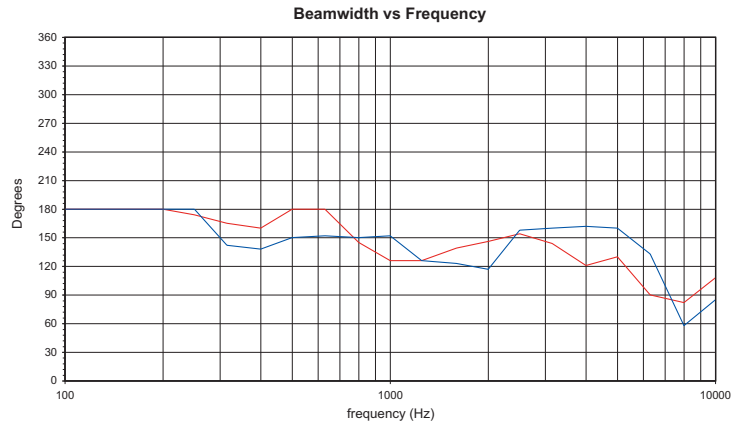
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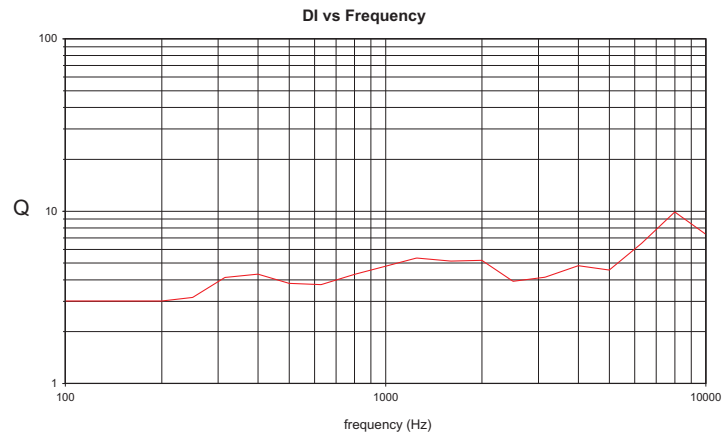
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## PERFORMANCE MEASUREMENTS



BEAMWIDTH



DIRECTIVITY INDEX

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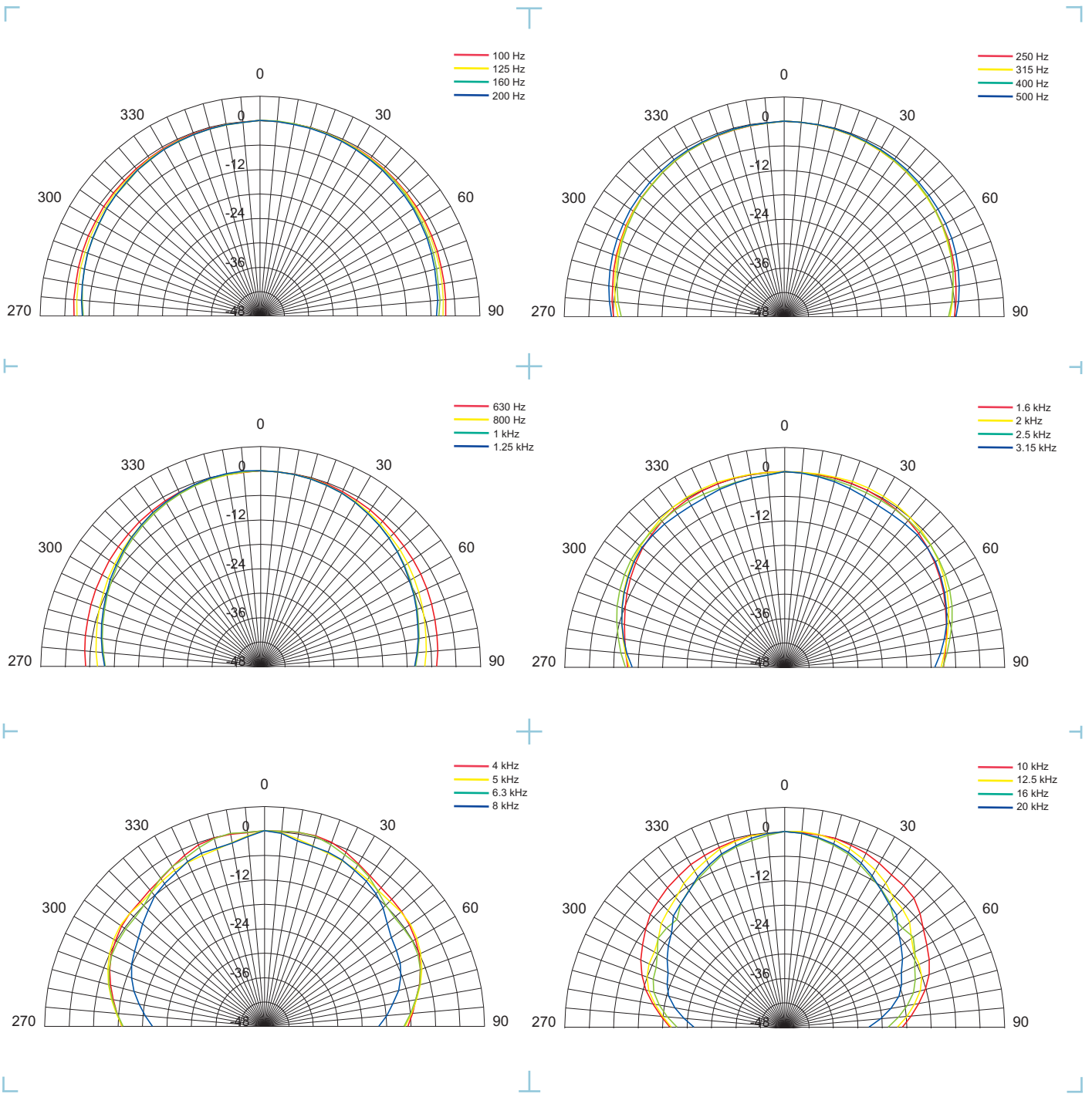
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# iw6 DS

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## PERFORMANCE MEASUREMENTS POLAR PLOTS (1/3 OCTAVE)



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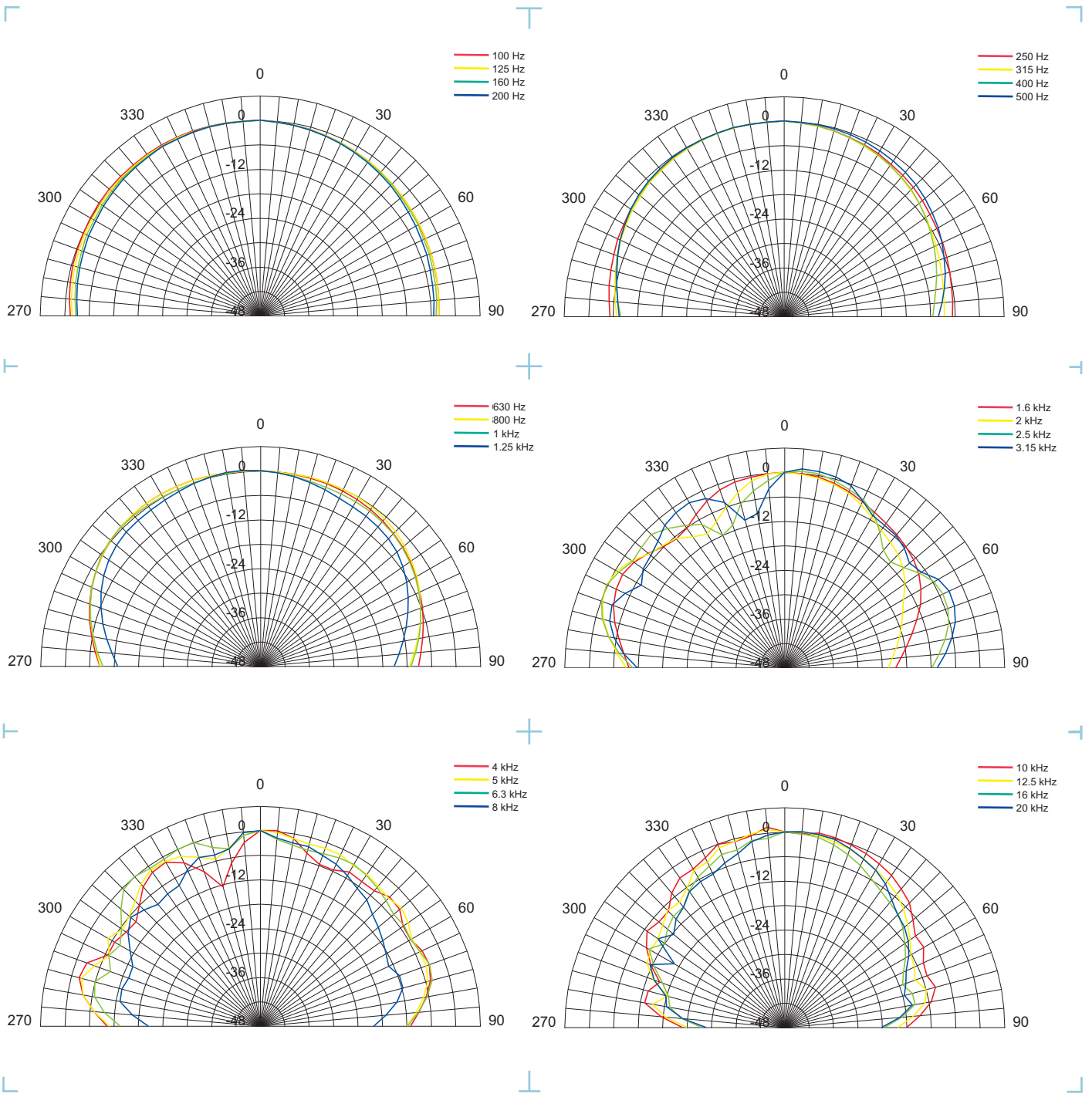
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# iw6 DS

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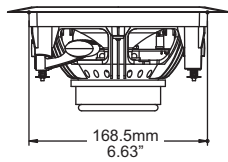
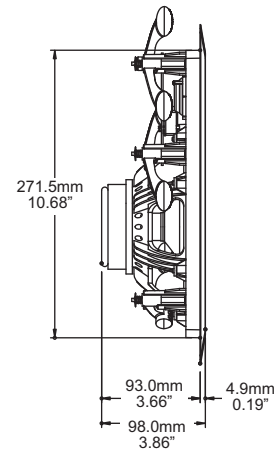
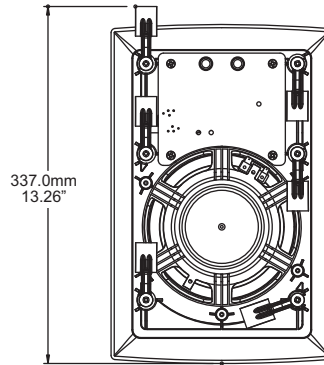
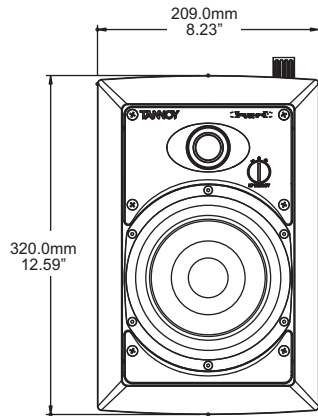
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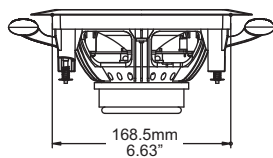
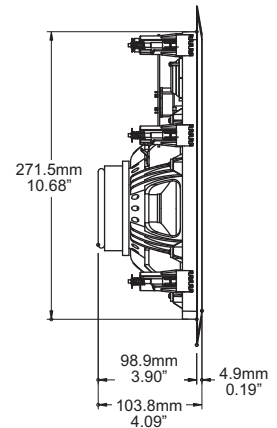
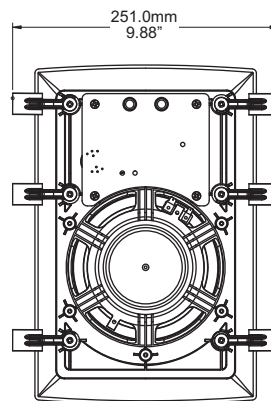
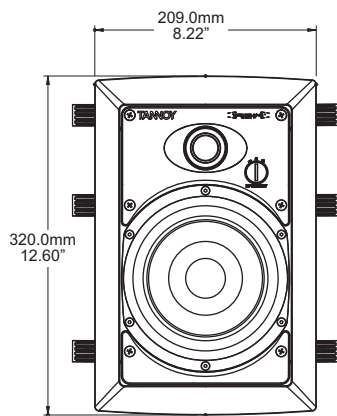
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## DIMENSIONAL SKETCHES



## iw6 DS - PRE-INSTALLATION



## iw6 DS - POST-INSTALLATION

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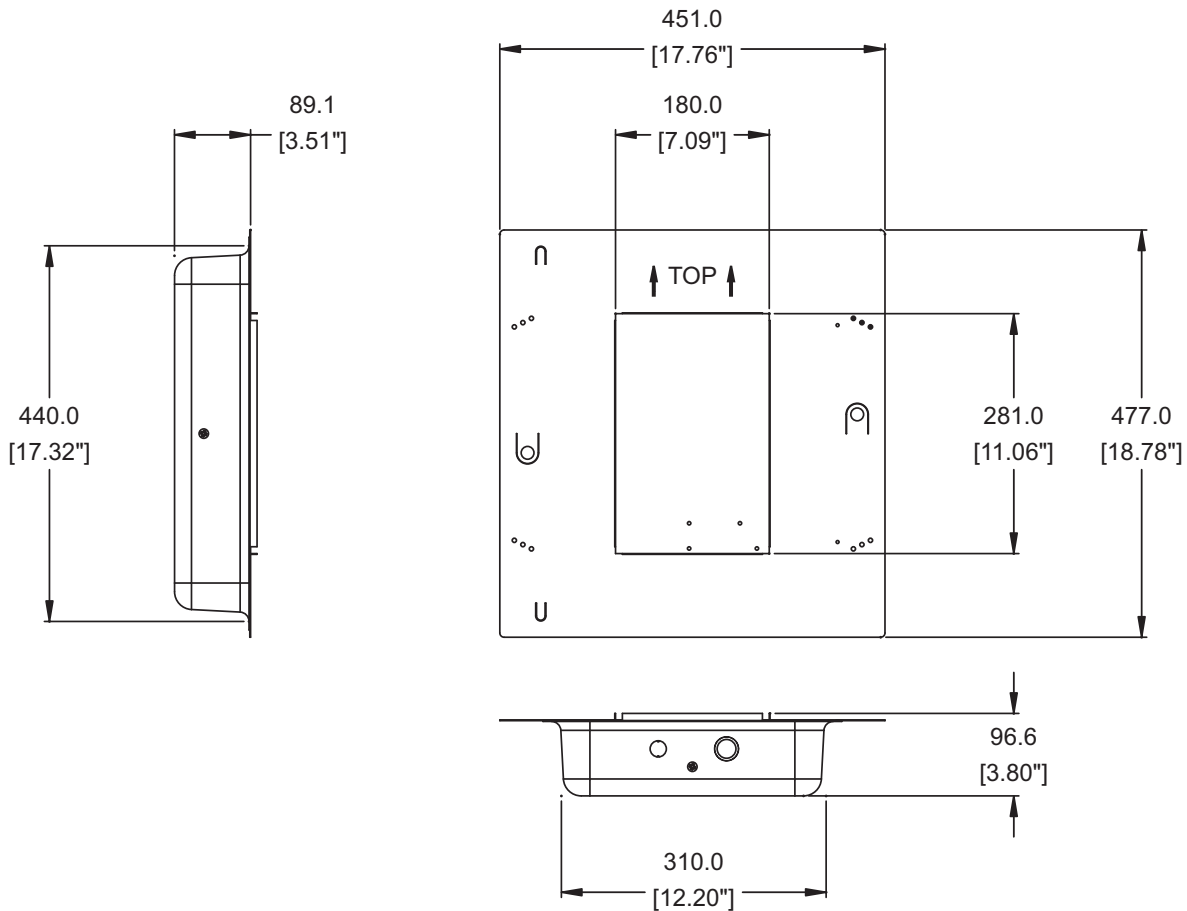
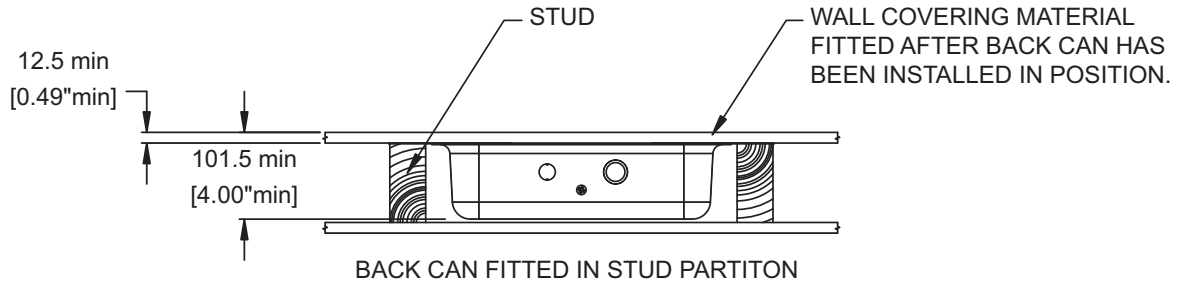
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## INWALL BACK CAN ACCESSORY



### Ordering Information

PART NUMBER	MODEL NAME	BAFFLE / GRILLE COLOUR	PACKED QUANTITY	PACKED WEIGHT
8000 4020	iw6 TDC/DS Back Can	Unpainted Steel	1	4.00Kgs (8.80lbs)
8000 4230	iw6 TDC/DS Transformer Back Can	Unpainted Steel	1	11.00Kgs (23.1lbs)
8000 4250	Pre-install mounting ring for iw6 TDC/TS	-	-	-





## Architectural specifications

The in wall speaker shall consist of one 165mm (6.50") bass unit and one 25mm (1.00") high frequency driver mounted in an injection moulded front baffle manufactured from UV/weather resistant UL94V-0 ABS material. The two-way system shall incorporate an optimised low loss crossover network. The wiring terminals shall be gold plated spring loaded connectors. Performance of the in wall speaker shall meet or exceed the following criteria: The system shall have a coverage angle of 130 degrees (1kHz to 6kHz). Frequency response measured on axis shall be 44Hz - 54kHz (-10dB from rated sensitivity, measured in an IEC baffle in an anechoic chamber) with no equalization. Sensitivity shall be 89dB (1W @ 1m). Long term power handling capacity as defined in EIA-426B test shall be 75W, recommended amplifier power 150W @ 8 Ohms. The nominal system impedance shall be 8 Ohms.

In 70V or 100V distributed audio systems the iw6 DS can be used with the optional the THP60 high performance, low insertion loss transformer with 60, 30,15 and 7.5W taps\* available.

A weather resistant perforated steel grille covers the transducer. Both the grille and baffle shall be paintable. The system shall not exceed the following dimensions: 320 x 209 x 98mm or 12.60 x 8.25 x 3.86" (H x W x D).

Hole cutout size shall be 271.50 x 168.50mm or 10.71 x 6.63".

The in wall speaker system shall be the.....iw6 DS.

\*70.7 Volt only



**NOTES**

Large grid area for notes

Horizontal lines for notes

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